



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/672,372

09/26/2003

Reinhold Berkau

510.1085

8543

23280

7590

01/11/2005

DAVIDSON, DAVIDSON & KAPPEL, LLC
485 SEVENTH AVENUE, 14TH FLOOR
NEW YORK, NY 10018

EXAMINER

MCCLENDON, SANZA L

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/672,372 | Applicant(s) BERKAU ET AL. | |
| | Examiner Sanza L McClendon | Art Unit 1711 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/03 and 3/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1711

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (claims 1-11 and the election of the species alkyd) in the reply filed on October 26, 2004 is acknowledged.

Claim Rejections - 35 USC § 102/35 USC § 103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5 and 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Walbridge (Prog. In Org. Coatings, 1996).

Walbridge teaches self-stratifying coatings of waterborne formulations. Said formulations comprise a mixture of an acrylic emulsion with alkyd dispersions. Said alkyd dispersion anticipates claim 5. While it is noted that the acrylic/alkyd formulations of the reference are not disclosed as having radiation curable components within said resins and polymer, the examiner is interpreting the limitation as a future intended use for the coating composition (i.e., curing of said composition) and, additionally, any monomer, oligomer, resin, and/or polymer has the ability to be hardened by radiation; whether as a heat source or an

Art Unit: 1711

energy source. And as such it is deemed that the reference reads on the instantly claimed invention.

While it is noted that the reference does not specify the difference in surface tension between the composition components, it is deemed in the absence of evidence to the contrary and/or unexpected results that the surface tensions are at least within the claimed range of claim 8 since the reference states that there was a significant degree of stratification observed. Since the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicant's compositional properties and components differ and, if so, to what extent, for the discussed reference, therefore the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

5. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakatani et al (US 4,916,019).

The German equivalent of this document is described in applicant's disclosure as prior art. Nakatani et al teaches cationically-depositable, epoxy-type resins (A) having a surface tension of 40 to 60 dynes/cm mixed with a non-ionic-type resin (B) having a surface tension from 25 to 45 dynes/cm, wherein it is disclosed by Nakatani et al the combination of resins should have a surface tension difference of at least 5 dynes/cm, which directly converts to 5 mN/m. Nakatani et al teaches said composition can be prepared by dispersing and/or dissolving (A) and (B) in an aqueous medium as outlined in column 7, lines 1-15, wherein it is deemed that method (2) reads on the instant coating composition.

The non-ionic resins can be selected from those found in column 5-6, wherein (1) acrylic resins that may or may not have radiation curable groups (from the butadiene as a third component), (2) polyester resins, (3) mixtures of acrylic and polyester resins, and (4) non-ionic silicone resin, such as alkyd modified silicone resins, which appears to anticipate claims 5-6. Nakatani et al teaches pigments can be added to the composition with either the (A) resin or the (B) resin—see column 7, lines 29-31. The coating compositions produce a heat cured multi-layer structures where the (A) component is predominately distributed in the lower layer portion in contact with the substrate giving corrosion resistance and the (B) component is predominately distributed in the upper portion layer providing excellent weatherability; wherein Nakatani et al teaches said separation is caused by the difference in surface tension.

While it is noted that Nakatani et al does not expressly teach the thickness of the separate layers, the examiner deems because the coating composition as taught by Nakatani et al reads on the instant composition, it should be able to function in the same ways, such as

Art Unit: 1711

coating thickness' of the separate layers. The inventions of claims 1-3 and 5-11 are deemed to be in the reference.

Claim Rejections - 35 USC § 103

6. Claims 1-3, 5, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmt (US 3,823,205) in view of Walbridge (Progress in Organic Coatings, 1996).

Zimmt teaches lacquers based on acrylic polymer blends. Said blend includes two acrylic copolymers that differ in glass transition temperatures (T_g) by at least 30 °C and a plasticizer, wherein alkyl resins are disclosed—see column 3, lines 1-15 and lines 45-50. While said compositions are taught as clear lacquers, Zimmt teaches pigments can be added to the compositions—see column 5, lines 1-15. Zimmt teaches the acrylic blends are mixed to produce a homogenous solution however said composition will phase separate on evaporation of the liquid phase because the difference in T_g's of the acrylic polymers makes them "borderline compatible". So while Zimmt does not expressly teach the surface energies of said acrylic copolymers, or the ratio difference of the surface tensions, it is clear from the teaching the acrylic copolymers differ in surface tension by at least 5 mN/m. And because the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicant's composition differ and, if so, to what extent, for the discussed reference, thus claim 8 is deemed to be read in the reference and the burden of establishing non-obviousness by objective evidence is shifted to the Applicants. While it is noted that the acrylic formulations of the reference are not disclosed as having radiation curable components within said resins and polymer, the examiner is interpreting the limitation as a future intended use for the coating composition and, additionally it is deemed, any monomer, oligomer, resin, and/or polymer has the ability to be hardened by radiation; whether as a heat source or an energy source. And as such it is deemed that the reference reads on the instantly claimed invention.

It is noted that Zimmt does not expressly teach aqueous formulations but formulations using volatile organic solvents. The examiner deems an ordinarily skilled artisan would have found it obvious to prepare aqueous formulations of the compositions taught by the reference, because the state of the art is now concerned with the disadvantages of VOC's with regard to the environment and worker safety and, additionally, Walbridge shows that it is known in the art that aqueous formulations comprising acrylic copolymers and alkyd resins produce coatings that have a significant degree of stratification. Therefore, a skilled artisan would have been able to obtain an aqueous formulation comprising the

Art Unit: 1711

compositions as taught by Zimmt with a reasonable expectation of obtaining a sprayable stratifying automobile finish having excellent gloss, high print resistance, and high craze resistance as suggested by Zimmt in the absence of evidence to the contrary and/or unexpected results—see column 1, lines 61-65 and column 2, lines 5-10. With regard to claim 11,

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It appears that the claim 11 lack clarity because the claim is not adequately supported by the specification. As described on page 4, paragraph 0016 and 0017, it is known in the art to coat with a filling material, applying a base coat and then subsequently to provide a clear coat, which are known as sequence coatings. It is unclear how this relates to applicant's claimed invention of self-stratifying coatings compositions and the claimed products therefrom. Is applicant intending to claim an improvement over the prior art (i.e., a pseudo-Jepson claim)? Clarification is requested.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

Art Unit: 1711

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sanza L. McClendon
Examiner
Art Unit 1711
1/9/05

SMc